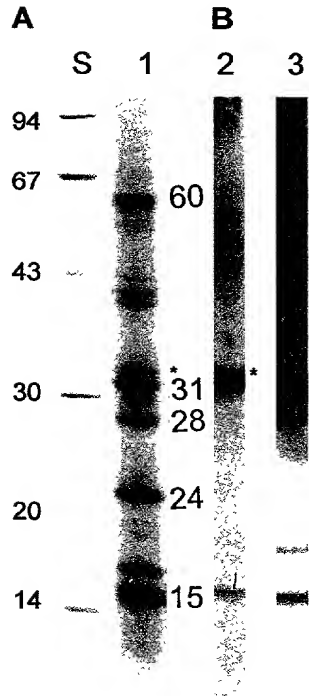


Appl No 09/864,291, Group Art Unit To Be Assigned  
 Dkt No 1669 0050001/JAG/EEF/RGM, Batch No N/A  
 Inventors OKO et al, Tel 202/371-2600  
 Title PT32 Sperm Protein, Sperm c-Yes, Oocyte  
 Cytoplasmic c-Yes, and Uses Thereof

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FIG 1



09864291.100001

Appl. No. 09/864,291; Group Art Unit: To Be Assigned  
 Dkt No 1669.0050001/JAG/EEF/RGM; Batch No N/A  
 Inventors: OKO et al; Tel: 202/371-2600  
 Title: PT32 Sperm Protein, Sperm c-Yes, Oocyte  
 Cytoplasmic c-Yes, and Uses Thereof

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FIG 2A

(SEQ ID NO:4)

1 CGGCACGAGGGCGGCAGGAGGGGGCCTG<sup>1</sup>GGCAGG  
 36 ATG GCA GTG AAC CAG AGC CAC ACC GAG AGC CGT CGT GGG GCC CTC ATC CCC TCT GGC GAA  
 1 M A V N Q S H T E S R R G A L I P S G E  
 96 AGT GTC TTG AAG CAG TGT GAG GAT GTG GAC CTC TGC TTC CTA CAG AAA CCA GTG GAA TCC  
 21 S V L K Q C E D V D L C F L Q K P V E S  
 156 TAT CTC TTT AAT GGC ACA AAG AAA GGA ACG TTG TTT CTC ACT TCA TAC CGG GTG GTC TTC  
 41 Y L F N G T K K G T L F L ~~0~~T S Y R V V F  
 216 GTG ACT TCA CAC TTA GTC AAT GAC CCC ATG CTT TCT TTT ATG ATG CCG TTT GGC CTG ATG  
 61 V T S H L V N D P M L S F M M P F G L M  
 276 AGT GAC TGC ACC ATT GAA CAA CCA ATT TTT GCC CCC AAC TAC ATT AAA GGA ACC ATT CAG  
 81 S D C T I E Q P I F A P N Y I K G T I Q  
 336 GCA GCT CCA GGT GGT GGC TGG GAA GGA CAA GCT GTT TTT AAG TTA TCC TTC AGG AAA GGA  
 101 A A P G G G W E G Q A V F K L S F R K G  
 396 GGT GCC ATC GAA TTT GCC CAA CTG ATG GTA AAA GCT GCC TCT GCT GCT GCC AGA GGA ATT  
 121 G A I E F A Q L M V K A A S A A A R G I  
 456 CCA CTT GGA AGT GTA AAT TAC TGG TTC GAC ACT TCA GGA CTG TAC ATA ATT ACT GTC CCA  
 141 P L G S V N Y W F D T S G L Y I I T V P

T06001-16249860

Appl. No. 09/864,291; Group Art Unit: To Be Assigned  
Dkt No 1669 0050001/JAG/EEF/RGM; Batch No. N/A  
Inventors OKO et al., Tel 202/371-2600  
Title PT32 Sperm Protein, Sperm c-Yes, Oocyte  
Cytoplasmic c-Yes, and Uses Thereof

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FIG 2B

516 GGG GCT GCA GTG TGC TCC TCA CAG ACA CCT TGT CCA GCA TAT CCA ATT GTG ATC TAT GGA  
161 G A A V C S S Q T P C P A Y P I V I {Y G  
576 CCC CCA CCA CCA GGA TAT ACA GTC CAA CCA GGG GAA TAT GGA ACT CCA CCA GAA GGA TAT  
181 P P P P G Y) T V Q P G E {Y G T P P E G) {Y  
A A A A  
636 GGA GCC CAA CCA GGG GGA TAT GGA GCC CCA CCT ATG GGA TAT GGA GCC CCG CCT GTG GGA  
201 G A Q P G G) {Y G A P P M G) {Y G A P P V G)  
696 TAT GGA GTC CCA CCT GGG GGA TAT GGA GTC CCA CCT GGG GGA TAT GGA GTC CCA CCT GGG  
221 {Y G V P P G G) {Y G V P P G G) {Y G V P P G  
756 GGA TAT GGA GCC CCA CCT GGG GGA TAT GGA GTC CCA CCT GGG GGA TAT GGT GCC CCA CCT  
241 G) {Y G A P P G G) {Y G V P P G G) {Y G A P P  
816 GGG GGA TAT GGA GCC CCA CCT GCA GGA TAT GGA GCC CCA CCA GCT GGA AAT GAA GCC CTA  
261 G G) {Y G A P P A G) {Y G A P P A G) ON E A L  
876 CCC CCT GCA TAT GAA GCT CCA TCT GCT GGA AAT ACA GCT GCC TCT CAC AGA TCT ATG ACA  
281 P P A Y E A P S A G N T A A S H R S M T  
A A A A  
936 GCT CAG CAG GAG ACT TCT CTT CCC ACT ACC TCA TCT TCT TAG  
301 A Q Q E T S L P T T S S S @  
GTCCATTTACCACTTCTCAGAGT<sup>42</sup>TAAACCTTGAAGACTCACCAAGCAAAGGGCACCCTAAACTGAAGTCACAGTAAGAAGG  
AAGACCCAGGTGCCAGTGGTAGGAGGTGTTCTGTGTCACGCAGTGGTCTGATCTTCTCCACACACCTGTGAGGTCTGTGCC  
TCAAAACAGATGAAGGTGAGAAGACGACTCCTGTTCTCAAGGAAGGAAGATGCTTGAAAACAGACTGCAAGCCAACTAGAGAG  
AGAGAGATGTGAAGTGGCACATAAAACAGCTTGGGGATGGAGACTGACTCTTTAGAAAACAGGCCTTCTCCCTGCCCTCTGA  
CCTGAGCAGAAAAGAGAAATCGCTGGAACCAAGAGCTAGGGTCACCCCTGCTTAGACGCCCTCGATTAAAGCCTGCTTGCTGT  
TGCATAAAAAAAAAAAAAA(1413)

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**FIG 3A**

```

      10          20          30          40          50          60
PT32 MAVNQSHTESRRGALIPSGESVLKQCEDVDLCFLQKPVESYLFNGTKKGTLFLTYSRVVF
      ..... :... . :::. . .:: : .   ::::::::::: :::.
WBP2 MALNKNHSEGG-GVIVNNTESILMSYDHVELTFNDMKNVPEAFKGTKKGTVYLTPYRVIF
      10          20          30          40          50

      70          80          90          100         110         120
PT32 VTSHLVNDPMLSFMMPFGLMSDCTIEQPIFAPNYIKGTIQAAPGGGWEGQAVFKLSFRKG
      ...  . : : ::::: ::::: ::::: ..::: .. : ::::: : ::::: :
WBP2 LSKG--KDAMQSFMMPFYLMKDCEIKQPVGANFIKGIVKAEEAGGWECSASYKLTFRTAG
      60          70          80          90          100         110

      130         140         150         160         170
PT32 GAIEFAQLMVKAASAAARG-IPLGSVNYWFDTSGLYIITVPGAAVCSSQTPC ----313 (SEQ ID NO:19)
      ::::: : ::::: :::. . . . . : : : : :
WBP2 GAIEFGQRMQLQVASQASRGEVPNGAYGYPYMPSPGAYVFPPP---VANGMYPC ----261 (SEQ ID NO:17)
      120         130         140         150         160

```

PT32 ----- (SEQ ID NO:5)  
WBPM PRSKM (SEQ ID NO:18)

[illegible]

**FIG 4A**

	200	210	220	230	240	250
PT32	<b>TPPEGYCAQPGGYGAPPMGYGAPPVGYGVPPCGGYGVPPCGGYGVPPCGGYGAPPGGYGVPPG</b> <b>:: ::::: : ::::: : : ::::: ::::: ::::: ::::: ::::: :::::</b>					
WBPH	<b>APPAGYGAQPGNEGPPVGYRASPVRYGAPPLGYGAPPAGYCAPPLGYCAPPLGYGTPL</b> <b>90 100 110 120 130 140</b>					

260 270 280 290 300 310  
 PT32 GYGAPPGGYGAPPAGYGAPPAGNEALPPAYEAPSAGNTAASHRSMTAQQETSLPTTSSS  
 ::::: ::::: :::: .: .: .: :::: .. ..:::~::~:  
 WBPH GYGAPPLGYGAPPAGNEGPPAGYRASPAAGSARGPQESTAA---QAPENEASLPSASSS  
 150 160 170 180 190

PT32 ----- (SEQ ID NO:9)

WBPH QDKEDDSGQPFRLRKSASFQCLLECDYLIVR (SEQ ID NO:10)  
200 210 220

Appl No 09/864,291; Group A1 Unit To Be Assigned  
Dkt No 1669 0050001/JAG/EEF/RGM, Batch No. N/A  
Inventors OKO et al., Tel 202/371-2600  
Title PT32 Sperm Protein, Sperm c-Yes, Oocyte  
Cytoplasmic c-Yes, and Uses Thereof

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FIG 4B

1►  
(SEQ ID NO:11) 1 ATGCCATTGATCTGATGACGAACCTCACTGTTGAACAACCAGTATTTGCTGCAAACCTTC  
(SEQ ID NO:12) 1 M P F D L M T N L T V E Q P V F A A N F  
61 ATTAAGGGAACCTATTCAGGCAGCTCCATATGGTGGCTGGGAAGGACAAGCTACTTTTAA  
21 I K G T I Q A A P Y G G W E G Q A T F K  
121 TTAGTCTTCAGAAATGGAGATGCCATTGAATTTGCCAGTTGATGGTGAAAGCTGCCTCT  
41 L V F R N G D A I E F A Q L M V K A A S  
181 GCTGTTGCCCGAGGATTTCCACTTAGAACCTTAAATGACTGGTTCAGCTCTATGGGAATT  
61 A V A R G F P L R T L N D W F S S M G I  
241 TATGTAATTACTGGGAAGGAATATGTGCACTCCACAGATGCCTTGTTCAGTTATTGTC  
81 Y V I T G E G N M C T P Q M P C S V I V  
301 TATGGGGCCCCACCTGCAGGATATGGAGCCCCACCTCCCGGATACGGAGCCCCACCTGCA  
101 [Y G A P P A G][Y G A P P P G][Y G A P P A  
361 GGATATGGAGCCCAACCCGTAGGAAATGAAGGCCCGCTGTGGGATACAGAGCCTCACCT  
121 G] Y G A Q P V G N E G P P V G Y R A S P  
421 GTGCGATATGGAGCCCCACCTCTTGATACGGAGCCCCACCTGCAGGATATGGAGCCCCA  
141 V R [Y G A P P L G][Y G A P P A G][Y G A P  
481 CCTCTAGGATATGGAGCCCCACCTCTTGATATGGAACCCACCTCTCGGATATGGAGCC  
161 P L G][Y G A P P L G][Y G T P P L G][Y G A  
541 CCACCTCTCGGATATGGAGCCCCACCTGCAGGAAATGAAGGCCCGCTGCGGGATACAGA  
181 P P L G][Y G A P P A G] N E G P P A G Y R  
601 GCCTCACCTGCTGGATCAGGAGCCAGGCTCAGGAATCTACAGCAGCCAGGCTCCTGAA  
201 A S P A G S G A R P Q E S T A A Q A P E  
661 AACGAGGCTTCTCTCCCTCTGCCTCCTCTCTCAGGTCCATTCTTAACCTTCTAAGATG  
221 N E A S L P S A S S S Q V H S ●●●  
TAAACCTGAAGACTCACCAAGCAAAGAGGTACCCTAAAATTGAAGTCAGGATAAGGAGG  
ACGACTCAGCTTAGAGTCATTGATTGATCTGCATTGTGAAAATTAGGAAACCAGATGCTC  
CCATGTTCTCAAGGACGACCTTCTTAAGGAAGTCAGTACGTGGGCAACAGTGATGAGAG  
GAAGAGAGGAGAGACTCAACCACTAGAGCAGGGATAAGGTTTCCCTTGTTTCAGCTTTTC  
AGTGTCTGCTGGAATGTGATGATTACCTCATTGTCAGGTAG-42

"F624960" 100901

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FIG 5



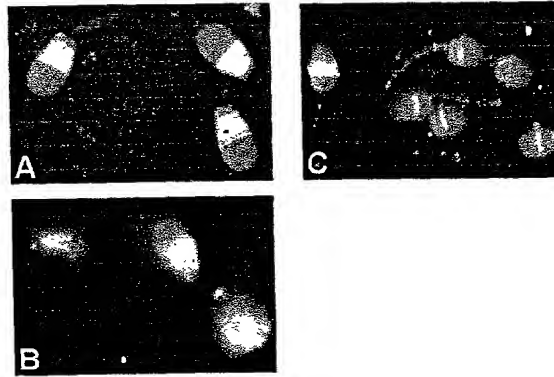
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Appl. No. 09/864,291; Group Art Unit. To Be Assigned  
Dkt No 1669.0050001/JAG/EEF-RGM, Batch No N/A  
Inventors: OKO et al.; Tel 202/371-2600  
Title PT32 Sperm Protein, Sperm c-Yes, Oocyte  
Cytoplasmic c-Yes, and Uses Thereof

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FIG 6

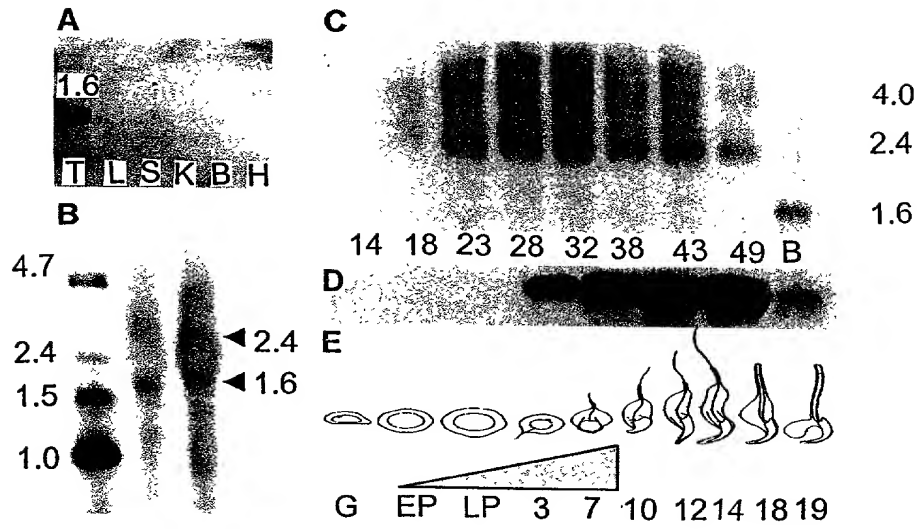


1669.0050001-PT32-9860

Appl. 09/864,291, Group A1 Unit To Be Assigned  
 Dkt No. 1669 0050001/JAG/EEF/RGM, Batch No. N/A  
 Inventors: OKO et al., Tel. 202/371-2600  
 Title: P132 Sperm Protein, Sperm c-Yes, Oocyte  
 Cytoplasmic c-Yes, and Uses Thereof

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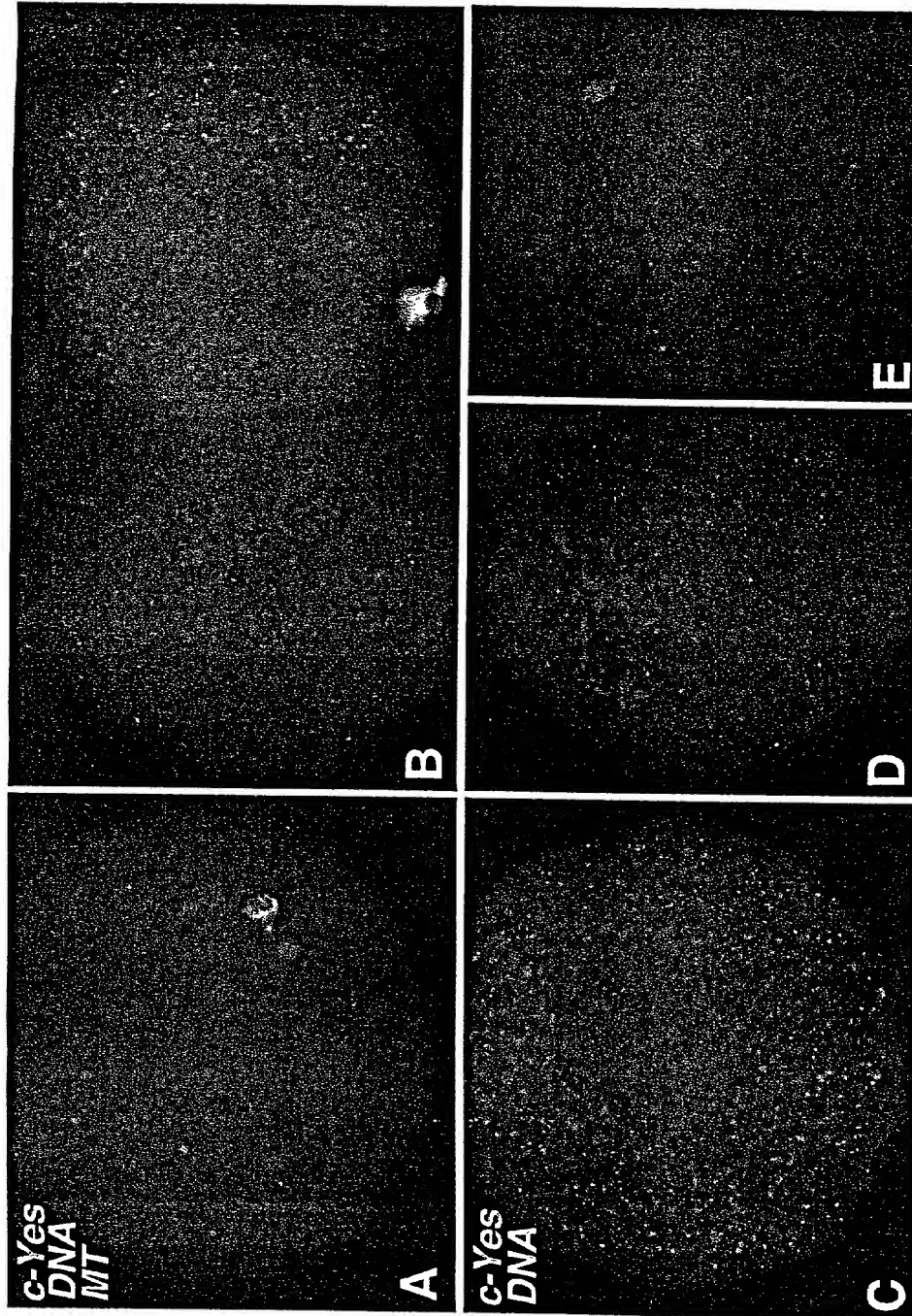
FIG 7



Appl. No. 09/864,291, Group Art Unit: *To Be Assigned*  
 Dkt No 1669 0050001/LAG/EEF/RGM, Batch No. N/A  
 Inventors: OKO et al. Tel 202/371-2600  
 Title PT32 Sperm Protein, Sperm c-Yes, Oocyte  
 Cytoplasmic c-Yes, and Uses Thereof

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FIG 8 - I

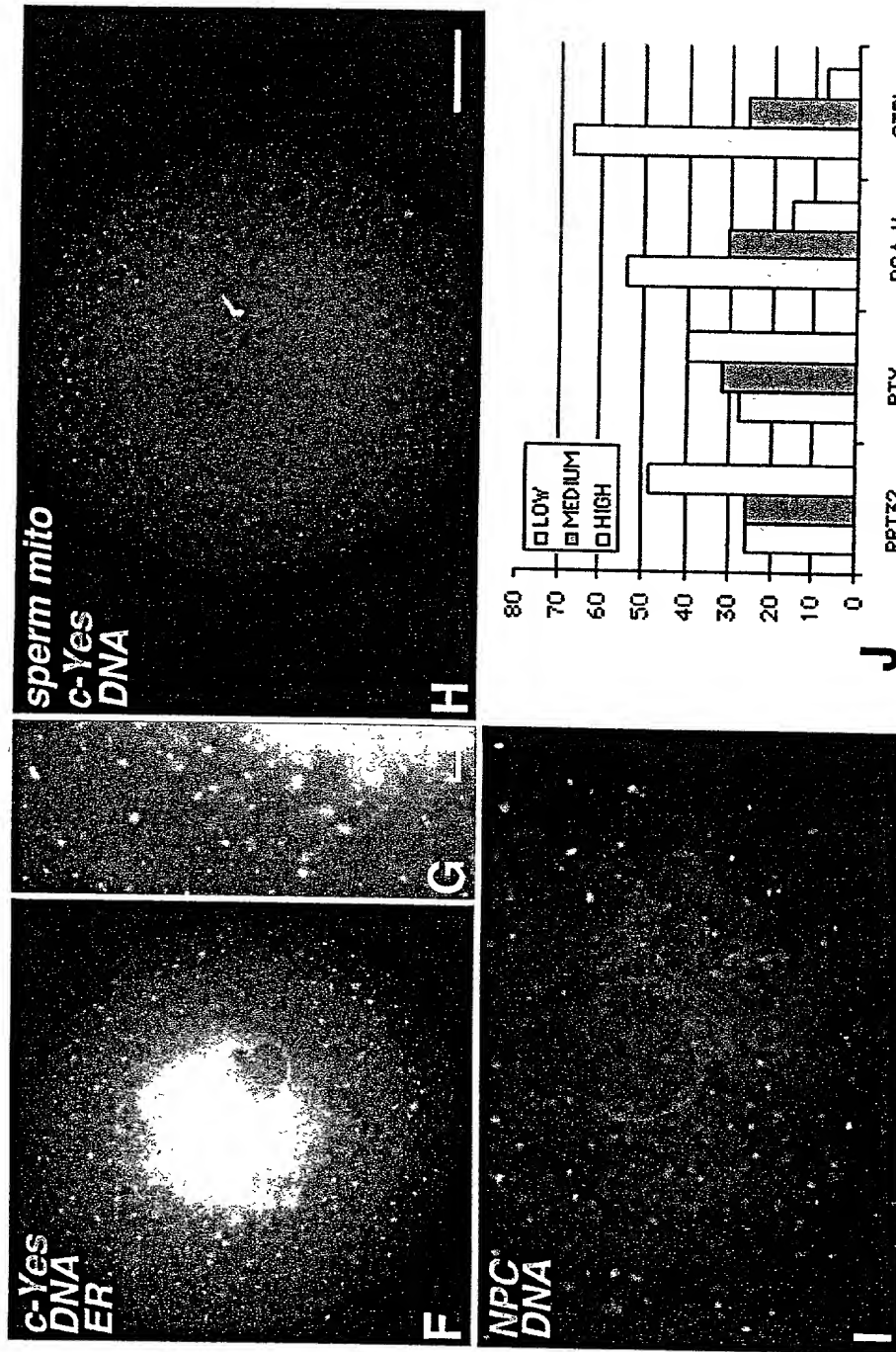


FO5001T 16279860

Appl. No. 09/864,291, Group Art Unit: To Be Assigned  
 Dkt No. 1669 0050001/JAG/EEF/RGM, Batch No. N/A  
 Inventors OKO et al.; Tel 202/371-2600  
 Title: PT32 Sperm Protein, Sperm c-Yes, Oocyte  
 Cytoplasmic c-Yes, and Uses Thereof

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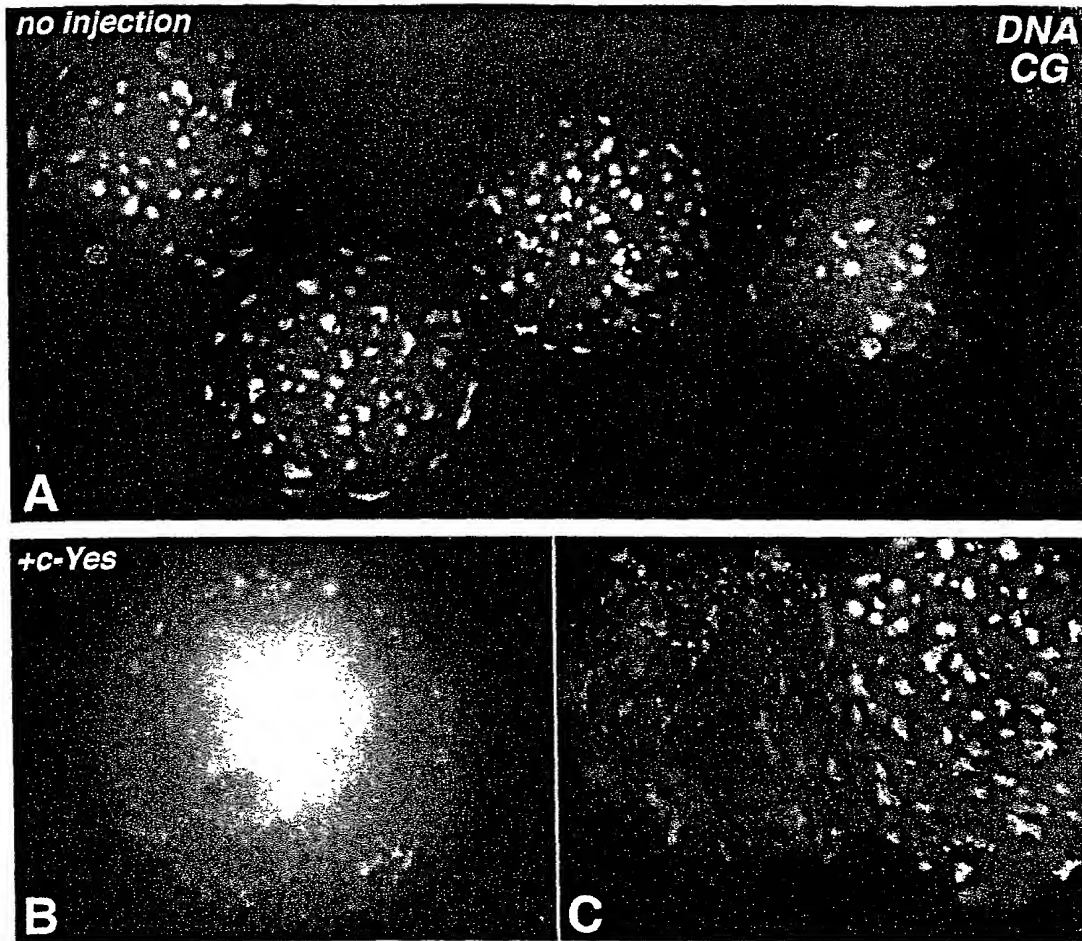
FIG 8 - II



Appl No 09/864,291, Group Art Unit. To Be Assigned  
Dkt No 1669 0050001/JAG/EEF/RGM, Batch No N/A  
Inventors OKO et al. Tel 202/371-2600  
Title PF32 Sperm Protein, Sperm c-Yes, Oocyte  
Cytoplasmic c-Yes, and Uses Thereof

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FIG 9 - I

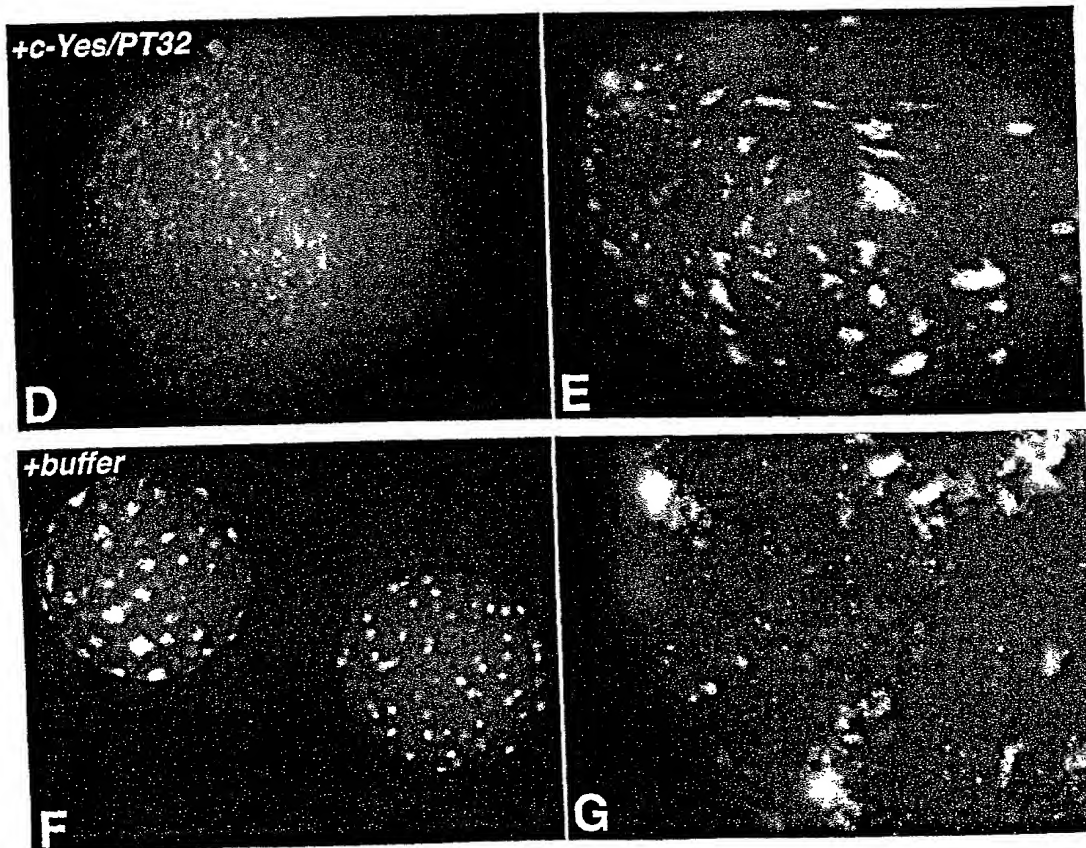


T0600T" T6249860

Appl. No. 09/864,291; Group Art Unit To Be Assigned  
 Dkt. No. 1669 0050001/JAG/EEF/RGM; Batch No. N/A  
 Inventors OKO et al; Tel. 202/371-2600  
 Title PT32 Sperm Protein, Sperm c-Yes, Oocyte  
 Cytoplasmic c-Yes, and Uses Thereof

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FIG 9 - II



1669 0050001

Appl. No. 09/864,291, Group Art Unit: To Be Assigned  
 Dkt No 1669 0050001/LAG/EEF/RGM; Batch No N/A  
 Inventors OKO et al; Tel 202/371-2600  
 Title PT32 Sperm Protein, Sperm c-Yes, Oocyte  
 Cytoplasmic c-Yes, and Uses Thereof

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FIG 10

1 mgclkskedk gpamkyrtnd tpepissvhs hygsdssqat qspaikgsav nfnshsmtpf  
 61 ggpsgmtpfq gasssfsavp spypstltgg vtvfvalydy earttdlslf kkgerfqiin  
 121 ntegdwwear siatgktgyi psnyvapads iqaeewyfgk mgrkdaerll lnpqnqrqlf  
 181 lvresettkg ayslsirdwd evrgdnvkhk kirkldnggy yittraqfes lqklvkhhye  
 241 hadglchklt tvcptvkpqt qglakdawe1 preslrlevk lgqgcfgeww mgtwngttkv  
 301 aiktikpgtm mpeaflqeaq imkklrhdkl vplyavvsee piyivtefmt kgslldfike  
 361 gegkflklpq lvdmaaqiad gmayiermny ihrdlraani lvgdnlvcki adfglarlie  
 421 dneytarqga kfpikwtape aalygrftik sdvwsfgill telvtkgrvp ypgmvnrevl  
 481 eqvergyrmp cpqgcpeslh elmklcwkkd pderptfeyl qsfledyfta tepqyqpqdn  
 541 <sup>1</sup> (SEQ ID NO:20)

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